REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-6, 8-36, and 38-40 are currently pending.

Claims 1-4, 6, 9-15, 17, 21-23, 25-26, 28-36, and 39-40 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,870,670 to Ripley et al. ("Ripley") in view of U.S. Patent No. 5,933,448 to Katisko ("Katisko"). Regarding independent claim 1, the Office Action acknowledges that Ripley fails to teach "an amplitude detector for determining the amplitude of the output I signal and an amplitude detector for determining the amplitude of the output Q signal." The Office Action further acknowledges that Ripley fails to teach "determining the difference between the amplitudes of the output I and Q signals to bring the differences between the amplitudes of the output I and Q signals towards a desired level." The Office Action asserts that column 3, lines 36-38 and 64-66 teaches these features. Applicant respectfully disagrees that Katisko teaches these features. Although column 3, lines 36 to 38 of Katisko refer to the amplitudes of I and Q signals as being preferably adjusted to be the same during a tuning phase, Applicant respectfully submits that Katisko fails to teach or suggest that this adjustment is made in response the amplitudes of the I and Q signals being detected. In contrast to the invention of independent claim 1, Katisko describes provisioning of a received signal strength indicator (RSSI) unit 22 for measuring the RSSI signal level, which is then used for adjusting the I and Q signals. Instead of having a first amplitude detector for determining the amplitude of an output I signal and a second amplitude detector for determining the amplitude of an output Q signal as found in independent claim 1, Katisko describes use of the RSSI unit 22 which provides a control signal for setting I and Q control signals 20 in conjunction with data stored in memory.

The Office Action asserts that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include and amplitude detector for determining the amplitude of the output I signal and an amplitude detector for determining the amplitude of the output Q signal, and determining the difference between the amplitude of the output I and Q signals to bring the difference between the amplitudes of the output I and Q signals towards a desired level because this would allow for adjustment of phase and/or amplitude of input signals provided for improving the image rejection." As previously

discussed, Katisko fails to teach or suggest these features. Even if it is assumed that Katisko teaches such features, Applicant respectfully submits that neither Ripley nor Katisko provides any motivation to combine the teachings of Ripley and Katisko to arrive at the invention of independent claim 1. As discussed, Katisko already provides its own separate arrangement for bringing I and Q signals towards a desired level. Applicant further submits there is no teaching or suggestion to one of ordinary skill in the art whereby a RSSI unit used in conjunction with data stored in memory as described by Katisko would be used in the arrangement of Ripley. Applicant respectfully submits that independent claim 1 distinguishes over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of independent claim 1 be withdrawn.

Independent claim 22 includes the features of "determining the amplitude of the output I signal"; "determining the amplitude of the output Q signal"; "determining the difference between the amplitudes of the output I and Q signals to produce a tuning signal"; and "tuning the phase shifting network using the tuning signal to bring the difference between the amplitudes of the output I and Q signals towards a desired level." For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that independent claim 22 distinguishes over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of independent claim 22 be withdrawn.

Independent claim 34 is directed to a tunable phase shifting network for use in an image reject circuit including the features of "wherein the phase shifting network further comprises a tuning input for receiving a tuning signal for adjusting an RC time constant of the phase shifting network, wherein the tuning signal comprises the difference between amplitudes of the output in-phase (I) signal and the quadrature (Q) signal." For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that independent claim 34 distinguishes over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of independent claim 34 be withdrawn.

Independent claim 39 is directed to a tunable phase shifting network for use in an image reject circuit including the features of "wherein the phase shifting network further comprises a tuning input for receiving a tuning signal for adjusting an RL time constant of the phase shifting network, wherein the tuning signal comprises the difference between amplitudes of the output in-phase (I) signal and the quadrature (Q) signal." For similar reasons as those

discussed with respect to independent claim 1, Applicant respectfully submits that independent claim 39 distinguishes over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of independent claim 39 be withdrawn.

Independent claim 40 is directed to a tunable phase shifting network for use in an image reject circuit including the features of "wherein the phase shifting network further comprises a tuning input for receiving a tuning signal for adjusting an LC time constant of the phase shifting network, wherein the tuning signal comprises the difference between amplitudes of the output in-phase (I) signal and the quadrature (Q) signal." For similar reasons as those discussed with respect to independent claim 1, Applicant respectfully submits that independent claim 40 distinguishes over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of independent claim 40 be withdrawn.

Claims 2-4, 6, 9-15, 17, 21, 23, 25-26, 28-33, and 35-36 are dependent upon and include the features of their respective independent claims 1, 22, and 34. For at least the reasons as discussed with respect to independent claims 1, 22, and 34, Applicant respectfully submits that claims 2-4, 6, 9-15, 17, 21, 23, 25-26, 28-33, and 35-36 also distinguish over Ripley in view of Katisko and requests that the 35 U.S.C. 103(a) rejection of claims 2-4, 6, 9-15, 17, 21, 23, 25-26, 28-33, and 35-36 be withdrawn.

Claims 5, 11, and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ripley in view of Katisko and WO 99/16179 to Moore ("Moore"). Claims 5 & 11, and 24 are dependent upon and include the feature of independent claims 1 and 22 respectively. As discussed with respect to independent claims 1 and 22, Ripley in view of Katisko fails to teach or suggest the aforementioned distinguishing features of independent claims 1 and 22. Regarding claim 5, the Office Action asserts that page 7, lines 5-7 of Moore teaches "a reverse polarity junction diode, which is tuned in accordance with a tuning signal." Regarding claim 11, the Office Action asserts that page 7, lines 5-7 of Moore teaches a resistor and a forward polarity diode connected between an input terminal and an output terminal." Regarding claim 24, the Office Action asserts that page 7, lines 5-7 & 10-11 of Moore teaches "changing the voltage across junction diodes, causing the capacitance of the junction diodes to change accordingly." However, Applicant respectfully submits that Moore also fails to teach or suggest the aforedescribed distinguishing features of independent claims 1 and 22. Applicant respectfully

submits that claims 5, 11, and 24 distinguish over Ripley in view of Katisko and Moore and requests that the 35 U.S.C. 103(a) rejection of claims 5, 11, and 24 be withdrawn.

Claims 8, 16, 18-20, 27, and 38 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ripley in view of Katisko and U.S. Patent No. 6,226,509 to Mole et al. ("Mole"). Claims 8, 16, 18-20, 27, and 38 are dependent upon and include the feature of their respective independent claims 1, 22, and 34. As discussed with respect to independent claims 1, 22, and 34 Ripley in view of Katisko fails to teach or suggest the aforementioned distinguishing features of independent claims 1 and 22. Regarding claim 8, the Office Action asserts that column 12, lines 15-18 & 21-25 of Mole teaches "transistors operating in their triode region." Regarding claim 16, the Office Action asserts that the abstract and column 4, lines 9-12 of Mole teaches "an RC poly-phase filter." Regarding claim 18, the Office Action asserts that column 8, lines 42-44 teaches "bipolar technology." Regarding claim 19, the Office Action asserts that column 13, lines 35-38 teaches "circuitry that is implemented in CMOS, BiCMOS, SiGe or GaAs technology." Regarding claim 20, the Office Action asserts that column 3, lines 65-67 and column 4, lines 1-2 teaches "an integrated circuit." However, Applicant respectfully submits that Moore also fails to teach or suggest the aforedescribed distinguishing features of independent claims 1, 22, and 34. Applicant respectfully submits that claims 8, 16, 18-20, 27, and 38 distinguish over Ripley in view of Katisko and Mole and requests that the 35 U.S.C. 103(a) rejection of claims 8, 16, 18-20, 27, and 38 be withdrawn.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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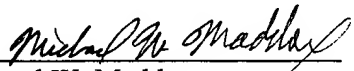
Respectfully submitted,

By 

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